



```
CCCCCCCC 000000 BBBB BBBB AAAA AAAA CCCCCC CCCCCC DDDDDDDD AAAA YY YY
CCCCCCCC 000000 BBBB BBBB AAAA AAAA CCCCCC CCCCCC DDDDDDDD AAAA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CC CC 00 00 BB BB AA AA CC CC CC CC DD DD AA AA YY YY
CCCCCCCC 000000 BBBB BBBB AAAA AAAA CCCCCC CCCCCC DDDDDDDD AAAA YY YY
CCCCCCCC 000000 BBBB BBBB AAAA AAAA CCCCCC CCCCCC DDDDDDDD AAAA YY YY
```

```
LL LL SSSSSSSS
LL LL SSSSSSSS
LL LL SS
LL LL SS
LL LL SS
LL LL SSSSSS
LL LL SSSSSS
LL LL SS
LL LL SS
LL LL SS
LL LL SS
LLLLLLLLLL SSSSSSSS
LLLLLLLLLL SSSSSSSS
```

```
1 0001 0 MODULE COBSACC_DAY (  
2 0002 0 IDENT = '1-006' ! file: COBACCDAY.B32 Edit:RKR1006  
3 0003 0 ) =  
4 0004 1 BEGIN  
5 0005 1  
6 0006 1  
7 0007 1  
8 0008 1  
9 0009 1  
10 0010 1 *  
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28 0028 1 *  
29 0029 1 *****  
30 0030 1  
31 0031 1 ++  
32 0032 1 FACILITY: COBOL SUPPORT  
33 0033 1  
34 0034 1 ABSTRACT  
35 0035 1  
36 0036 1  
37 0037 1  
38 0038 1 ENVIRONMENT: Vax-11 User Mode  
39 0039 1  
40 0040 1 AUTHOR: MLJ , CREATION DATE: 16-JAN-1979  
41 0041 1  
42 0042 1 MODIFIED BY:  
43 0043 1  
44 0044 1 1-001 - Original, MLJ 16-JAN-1979  
45 0045 1 1-002 - Added boilerplate and comments. RKR 18-JULY-1979  
46 0046 1 1-003 - Declare psects via library macro. RKR 23-AUG-1979  
47 0047 1 1-004 - Change symbolic name of LIBRARY. RKR 1-OCT-79  
48 0048 1 1-005 - Cosmetic changes. RKR 18-OCT-79  
49 0049 1 1-006 - Fix computation of number of days since 01-JAN so that  
50 0050 1 computation does not fail when this delta is 0. (i.e.  
51 0051 1 on 01-JAN-xxxx). RKR 11-JAN-81  
52 0052 1  
53 0053 1 --  
54 0054 1  
55 0055 1 !<BLF/PAGE>
```



```
57 0056 1 !  
58 0057 1 ! SWITCHES  
59 0058 1 !  
60 0059 1 !  
61 0060 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);  
62 0061 1 !  
63 0062 1 !  
64 0063 1 ! LINKAGES  
65 0064 1 !  
66 0065 1 ! NONE  
67 0066 1 !  
68 0067 1 ! TABLE OF CONTENTS:  
69 0068 1 !  
70 0069 1 FORWARD ROUTINE  
71 0070 1 !  
72 0071 1 COBSACC_DAY : NOVALUE ;  
73 0072 1 !  
74 0073 1 ! INCLUDE FILES  
75 0074 1 !  
76 0075 1 REQUIRE 'RTLIN:RTLPSECT' ; ! Macros for declaring psects  
77 0170 1 LIBRARY 'RTLSTARLE';  
78 0171 1 !  
79 0172 1 !  
80 0173 1 ! MACROS  
81 0174 1 !  
82 0175 1 ! NONE  
83 0176 1 !  
84 0177 1 ! EQUATED SYMBOLS  
85 0178 1 !  
86 0179 1 ! NONE  
87 0180 1 !  
88 0181 1 ! PSECT DECLARATIONS:  
89 0182 1 !  
90 0183 1 DECLARE_PSECTS (COB) ; ! Psects for COB$ facility  
91 0184 1 !
```

```
93 0185 1 GLOBAL ROUTINE COBSACC_DAY(DST): NOVALUE=
94 0186 1
95 0187 1 ++      FUNCTIONAL DESCRIPTION
96 0188 1
97 0189 1      Returns date as YYDDD
98 0190 1
99 0191 1 FORMAL PARAMETERS:
100 0192 1
101 0193 1      DST.wt.ds      Address of string descriptor to receive date
102 0194 1
103 0195 1 IMPLICIT INPUTS:
104 0196 1
105 0197 1      Date as supplied by $ASCTIM
106 0198 1
107 0199 1 IMPLICIT OUTPUTS:
108 0200 1
109 0201 1      NONE
110 0202 1
111 0203 1 ROUTINE VALUE:
112 0204 1 COMPLETION CODES:
113 0205 1
114 0206 1      NONE
115 0207 1
116 0208 1 SIDE EFFECTS:
117 0209 1
118 0210 1      NONE
119 0211 1
120 0212 1 --
121 0213 1
122 0214 2 BEGIN
123 0215 2 MAP
124 0216 2     DST:          REF BLOCK[,BYTE];      ! Pointer to destination descriptor
125 0217 2     LOCAL
126 0218 2         SYSTIM:    VECTOR[2],             ! Buffer for $GETTIM
127 0219 2         JAN1TIM:   VECTOR[2],             ! Buffer for $BINTIM
128 0220 2         TIMBUF:    BLOCK[23,BYTE],         ! Buffer for $ASCTIM
129 0221 2         BUFFER:    BLOCK[5,BYTE],          ! Buffer for assembling output
130 0222 2         TIMDESC:   VECTOR[2],             ! Descriptor for TIMBUF
131 0223 2         CTLDISC:   VECTOR[2],             ! Descriptor for FAO control
132 0224 2         BUFDESC:   VECTOR[2],             ! Descriptor for FAO output
133 0225 2         N;                ! Number of days since 01-Jan
134 0226 2
135 0227 2
136 0228 2     ! Get system date and time.
137 0229 2
138 0230 2     $GETTIM(TIMADR=SYSTIM);                ! Get time in 64-bit format
139 0231 2
140 0232 2
141 0233 2     ! Convert the system date and time to ASCII.
142 0234 2
143 0235 2     TIMDESC[0] = 23;                        ! Set up descriptor
144 0236 2     TIMDESC[1] = TIMBUF;
145 0237 2     $ASCTIM(TIMBUF=TIMDESC, TIMADR=SYSTIM); ! Get ASCII representation
146 0238 2
147 0239 2
148 0240 2     ! Save the year of century.
149 0241 2
```

```
150      BUFFER[0,0,16,0] = .TIMBUF[9,0,16,0];
151
152
153      ! Replace the system date and time by 01-Jan of the same year and
154      ! reconvert to 64-bit format.
155
156      TIMBUF[0,0,32,0] = '01-J';           ! Change to 01-Jan
157      TIMBUF[4,0,16,0] = 'AN';           !
158      $BINTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM); ! Reconvert to 64-bit format
159
160
161      ! Compute the difference JAN1TIM - SYSTIM. This yields a delta-time
162      ! value for the number of days since 01-Jan.
163
164      IF .JAN1TIM[0] LSSU .SYSTIM[0] THEN JAN1TIM[1] = .JAN1TIM[1] - 1;
165      JAN1TIM[0] = .JAN1TIM[0] - .SYSTIM[0];
166      JAN1TIM[1] = .JAN1TIM[1] - .SYSTIM[1];
167
168      ! If we're dealing with a date of 01-JAN-xx, the above sequence of
169      ! conversions will leave us with a value of zero. Unfortunately,
170      ! zero is positive and the following conversion will attempt to
171      ! deal with it as a date, rather than a delta time. To correct for
172      ! this, if the high-order part of the computed JAN1TIM is positive
173      ! we force it negative to insure interpretation as a delta time.
174
175      IF .JAN1TIM[1] GEQ 0 THEN JAN1TIM[1] = -1 ;
176
177      ! Convert the delta-time value to ASCII. The number of days is then
178      ! one less than the desired Julian date.
179
180      $ASCTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM);
181
182
183      ! Convert the number of days to binary.
184
185      N = 0;
186      INCR I FROM 0 TO 3 DO
187      BEGIN
188      IF .TIMBUF[.1,0,8,0] NEQ %C' '
189      THEN
190      N = .N * 10 + .TIMBUF[.1,0,8,0] - %C'0';
191      END;
192
193
194      ! Convert this value plus one into the output string.
195
196      CTLDESC[0] = 4;
197      CTLDESC[1] = UPLIT('!3ZL');
198      BUFDESC[0] = 3;
199      BUFDESC[1] = BUFFER[2,0,0,0];
200      $FAO(CTLDESC, 0, BUFDESC, .N + 1);
201      CH$COPY(5, BUFFER, %C' ', .DST[DSC$W_LENGTH], .DST[DSC$A_POINTER]);
202      END;
```

```
.TITLE COBSACC_DAY
.IDENT \1-006\
```



				.PSECT	_COB\$CODE,NOWRT, SHR, PIC,2			
4C	5A	33	21	00000	P.AAA:	.ASCII \!3ZL\		
				.EXTRN	SYSS\$GETTIM, SYSS\$ASCTIM			
				.EXTRN	SYSS\$BINTIM, SYSS\$FAO			
				007C	00000	.ENTRY	COBSACC DAY, Save R2,R3,R4,R5,R6	0185
	56	00000000G	00	9E	00002	MOVAB	SYSS\$ASCTIM, R6	
	5E	B8	AE	9E	00009	MOVAB	-72(SP), SP	
		40	AE	9F	0000D	PUSHAB	SYSTIM	0230
00000000G	00		01	FB	00010	CALLS	#1, SYSS\$GETTIM	
10	AE		17	D0	00017	MOVL	#23, TIMDESC	0235
14	AE	20	AE	9E	0001B	MOVAB	TIMBUF, TIMDESC+4	0236
			7E	D4	00020	CLRL	-(SP)	0237
		44	AE	9F	00022	PUSHAB	SYSTIM	
		18	AE	9F	00025	PUSHAB	TIMDESC	
			7E	D4	00023	CLRL	-(SP)	
	66		04	FB	0002A	CALLS	#4, SYSS\$ASCTIM	
18	AE	29	AE	B0	0002D	MOVW	TIMBUF+9, BUFFER	0242
20	AE	4A2D3130	8F	D0	00032	MOVL	#1244475696, TIMBUF	0248
24	AE	4E41	8F	B0	0003A	MOVW	#20033, TIMBUF+4	0249
		38	AE	9F	00040	PUSHAB	JAN1TIM	0250
		14	AE	9F	00043	PUSHAB	TIMDESC	
00000000G	00		02	FB	00046	CALLS	#2, SYSS\$BINTIM	
40	AE	38	AE	D1	0004D	CMPL	JAN1TIM, SYSTIM	0256
			03	1E	00052	BGEQU	1\$	
		3C	AE	D7	00054	DECL	JAN1TIM+4	
38	AE	40	AE	C2	00057	SUBL2	SYSTIM, JAN1TIM	0257
3C	AE	44	AE	C2	0005C	SUBL2	SYSTIM+4, JAN1TIM+4	0258
			04	19	00061	BLSS	2\$	0267
3C	AE		01	CE	00063	MNEGL	#1, JAN1TIM+4	
			7E	D4	00067	CLRL	-(SP)	0272
		3C	AE	9F	00069	PUSHAB	JAN1TIM	
		18	AE	9F	0006C	PUSHAB	TIMDESC	
			7E	D4	0006F	CLRL	-(SP)	
	66		04	FB	00071	CALLS	#4, SYSS\$ASCTIM	
			50	D4	00074	CLRL	N	0277
			52	D4	00076	CLRL	I	0278
	53	20	AE42	9A	00078	MOVZBL	TIMBUF[I], R3	0280
	20		53	91	0007D	CMPB	R3, #32	
			09	13	00080	BEQL	4\$	
51	50		0A	C5	00082	MULL3	#10, N, R1	0282
E9	50		D0	A341	9E	MOVAB	-48(R3)[R1], N	
	52		03	F3	0008B	AOBLEQ	#3, I, 3\$	0278
	08	AE	04	D0	0008F	MOVL	#4, CTLDISC	0288
	0C	AE	CF	9E	00093	MOVAB	P.AAA, CTLDISC+4	0289
	6E	AE	03	D0	00099	MOVL	#3, BUFDESC	0290
	04	AE	1A	AE	9E	MOVAB	BUFFER+2, BUFDESC+4	0291
			01	AO	9F	PUSHAB	1(N)	0292
			04	AE	9F	PUSHAB	BUFDESC	
			7E	D4	000A7	CLRL	-(SP)	
		14	AE	9F	000A9	PUSHAB	CTLDISC	
00000000G	00		04	FB	000AC	CALLS	#4, SYSS\$FAO	
	50		AC	D0	000B3	MOVL	DSI, R0	0293
60	20	18	AE	05	2C	MOVCS	#5, BUFFER, #32, (R0), @4(R0)	

COB\$ACC\_DAY  
1-006

E 12  
15-Sep-1984 23:48:04  
14-Sep-1984 12:10:20

VAX-11 Bliss-32 V4.0-742  
[COBRTL.SRC]COBACCDAY.B32;1

Page 6  
(3)

04 B0 000BD  
04 000BF RET

: 0294

: Routine Size: 192 bytes, Routine Base: \_COB\$CODE + 0004

: 203 0295 1  
: 204 0296 0 END ELUDOM

# PSECT SUMMARY

Name	Bytes	Attributes
_COB\$CODE	196	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

# Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	8	0	581	00:00.8

# COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS:COBACCDAY/OBJ=OBJ\$:COBACCDAY MSRCS:COBACCDAY/UPDATE=(ENH\$:COBACCDAY  
: )

: Size: 192 code + 4 data bytes  
: Run Time: 00:04.2  
: Elapsed Time: 00:21.5  
: Lines/CPU Min: 4208  
: Lexemes/CPU-Min: 32331  
: Memory Used: 73 pages  
: Compilation Complete



0060 AH-BT13A-SE  
VAX/VMS V4.0

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UTILSUBS  
LIS

INTPAR  
SQL

COBDEF  
REQ

COBACCDAY  
LIS

COBACCECU  
LIS

COBRTL

COBLNK  
REQ

COBRTL  
MAP